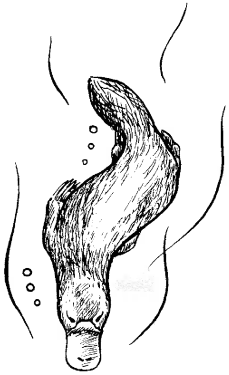
Tasmanian Field Naturalists Club Inc.



Bulletin

https://tasfieldnats.org.au

Quarterly Bulletin No. 375 October 2019

Editor: Deirdre Brown Email: tfn.bulletin.editor@gmail.com

Contents

Field Nats fossick at Fossil Cove. Photo: Eddie Gall

Program

Thursday 7th. November	Meeting. Guest Speaker Rod Hewer will give a presentation "Gemstones and Petrifactions"
Sunday 10th. November	Excursion to Rod Hewer's private geology and artifact collection at Acton. Starts 10am for a presentation, demonstration of rock cutting and polishing and time to look around the collection. Ample parking. Bring lunch. See website for address and details.
Thursday 5th. December	Meeting. Members Night. Members are invited to make short presentations on a relevant subject.
Saturday 7th. December	BBQ at Waterworks Reserve Site no. 2 from 11am - 2pm.
Thursday February 6th. 2020	First meeting for 2020. Excursion TBA on the weekend following meeting.

General Meetings start at 7.15 pm for 7.30 pm on the first Thursday of the month and feature a guest speaker on natural history (no meetings or excursions in January). Meetings are held in the Life Science Building at the University of Tasmania.

Excursions are usually held the following Saturday or Sunday, meeting in the morning at agreed time and place. Bring lunch and all-weather outdoor gear. If you are planning to attend an outing, but have not been to the prior meeting, please confirm the details on the club website as late changes are sometimes made.

Fossil Cove, Blackmans Bay

Saturday 3rd August 2019

This outing was very well attended with approximately 30 participants, who met at the end of Fossil Cove Drive at 2 p.m. to coincide with the low tide. Although the weather threatened to dampen our outing, substantial showers conveniently held off until we returned just before 4 p.m.

The path descending to the cove via many steps took us through three main vegetation communities with transitional zones (see species list): dry sclerophyll forest dominated by silver peppermint (*Eucalyptus tenuiramis*), wetter forest in the gully with *Eucalyptus globulus*, and coastal vegetation.

The Permian mudstone beds, formed about 250 million years ago, are well exposed along the end of the gully leading to the shoreline, where they have been eroded to form terraces. Here, an intrusion of dolerite that occurred about 180 million years ago is visible as a darker layer. Fossilised bryozoans, brachiopods and other bivalves are clearly visible in the exposed mudstone strata.

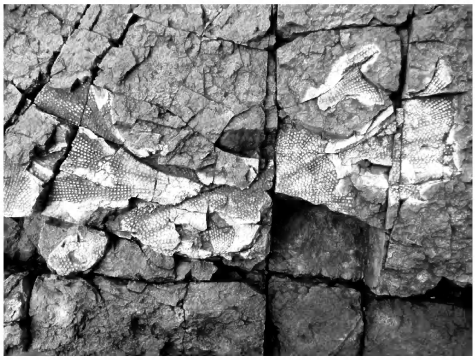
At the northern end of the cove, a natural arch has formed; some of the more adventurous of us braved the incoming waves to slip through it to explore the other side. Others browsed the cobble-covered beach, finding washed-up seaweeds, sponges, snails, shells and even cowries, including one species that is uncommon in Tasmania.

Consulting the authorities at Fossil Cove
Photograph: EddieGall

The cove afforded great views of South Arm and the D'Entrecasteaux Channel, with the Iron Pot lighthouse clearly visible. For some time the view was perfectly framed by a double rainbow. Giant kelp fronds could be seen floating on the water surface. As Fossil Cove is located approximately 600 metres north of the boundary of Tinderbox Marine Reserve, it is also a popular area for snorkelling.

It is worth having a look at the PWS web page on Tinderbox Marine Reserve, which details the biodiversity of this temperate reef ecosystem at https://www.parks.tas.gov.au/file.aspx?id=38954.

While some of us were having afternoon tea or standing around looking out to sea, two seals were spotted. Two cormorants were also bobbing around on the surface. The highlight of the excursion was undoubtedly when a white-bellied sea-eagle snatched a fish from the water! Luckily, this spectacle was captured on camera for those who missed it. (See back page).



Bryozoan fossils
Photograph: Sabine Borgis

One of Pennicott's excursion boats happened to come by, slowing to explore the shoreline. Perhaps the crew and passengers were surprised to see such a large group of people pottering around the cove.

It is perhaps no exaggeration to say that Fossil Cove is one of those best-kept secrets being so close to suburbia. This short walk catered for a multitude of interests, making it a delightful and memorable outing.

Sabine Borgis

Species list

Seaweeds (Annabel & Janet)

Green Seaweeds
Chaetomorpha sp.
Ulva australis

Red Seaweeds
Ceramicaceae species
Coeloclonium tasmanicum (old)

Brown Seaweeds
Ecklonia radiata
Lessonia corrugata
Macrocystis pyrifera (Giant Kelp)
Pollexfenia pedicellata
Undaria pinnatifida

A selection of cowrie shells found at Fossil Cov
Photograph: Lynne Maher

Birds (Mick and Chris)

Bush Birds

Yellow-throated Honeyeater
Grey Shrike-thrush
Yellow-tailed Black Cockatoo
Eastern Spinebill
New Holland Honeyeater
Silvereye
Grey Currawong
Common Bronzewing
Forest Raven
Masked Lapwing

Sea birds

Black-faced Cormorant
Kelp Gull
Pacific Gull
Silver Gull
White-bellied Sea-eagle

Plants (Mick, Eddie & Annabel)

Top of track on Mudstone

MONOCOTS

Asparagaceae Lomandra longifolia (Saggs)
Cyperaceae Lepidosperma laterale
Iridaceae Diplarrena moraea
Orchidaceae Acianthus pusillus
Orchidaceae Pterostylis sp. (leaves only)

DICOTS

Casuarinaceae Allocasuarina verticillata
Casuarinaceae Allocasuarina littoralis
Ericaceae Astroloma humifusum
Ericaceae Epacris impressa
Ericaceae Lissanthe strigosa
Fabaceae Acacia longifolia var sophorae
Fabaceae Pultenaea daphnoides
Myrtaceae Eucalyptus tenuiramis
Myrtaceae Eucalyptus globulus
Santalaceae Exocarpos cupressiformis
Santalaceae Exocarpos strictus

Transition Mudstone to Gully

MONOCOTS

Poaceae Poa sieberiana
Poaceae Poa labillardierei

DICOTS

Asteraceae Bedfordia linearis
Asteraceae Olearia viscosa (opposite leaves)
Casuarinaceae Allocasuarina littoralis
Fabaceae Acacia verticillata
Fabaceae Acacia leprosa var graveolens
Myrtaceae Eucalyptus globulus
Myrtaceae Eucalyptus obliqua
Rubiaceae Coprosma quadrifida
Santalaceae Exocarpos cupressiformis

Rock Outcrop

FERN Aspleniaceae Asplenium flabellifolium

DICOTS

Campanulaceae Wahlenbergia sp.
Geraniaceae Geranium potentilloides
Oxalidaceae Oxalis corniculata
Rubiaceae Galium australe
Rubiaceae Rubus fructicosus complex
Violaceae Viola hederacea

Gully

FERN Dryopteridaceae Polystichum proliferum

MONOCOTS

Cyperaceae Carex apressa
Juncaceae Juncus sp.

DICOTS

Asteraceae Cassinia aculeata
Asteraceae Olearia argophylla
Asteraceae Senecio sp. (hairy seedlings)
Casuarinaceae Allocasuarina verticillata
Chenopodiaceae Rhagodia candolleana
Ericaceae Leptecophylla parvifolia
Fabaceae Acacia dealbata
Fabaceae Acacia leprosa var graveolens
Geraniaceae Pelargonium sp.
Fabaceae Acacia melanoxylon
Myrtaceae Eucalyptus globulus
Myrtaceae Eucalyptus obliqua
Pittosporaceae Bursaria spinosa
Ranunculaceae Clematis aristata
Rhamnaceae Pomaderris apetela
Rosaceae Acaena novae-zelandiae
Sapindaceae Dodonaea viscosa

Beach/Coastal species

MONOCOT

Poaceae Austrostipa stipoides

DICOTS

Aizoaceae Carpobrotus rossii

Aizoaceae Tetragonia implexicoma

Chenopodiaceae Rhagodia candolleana

Invertebrates

Spiders (Geoff Carle)

Theridiidae (Comb-footed spider)

Stiphidiiae (Sheet-web spider)

Cowrie Shells *(Lynne Maher)*

Notocypraea angustata (Brown Cowrie)

Notocypraea declivis (Freckled Cowrie)

Notocypraea subcarnea (Plump Cowrie)

Fungi (Amanda)

Ascomycetes: Chlorociboria aeruginascens

Lichens *(Sabine)*

Cladonia spp.

Lepraria sp.

Chrysothrix candelaris

?Paraporpidia sp.

Neophyllis melacarpa

Usnia sp.

Flavoparmelia rutidota

Caloplaca sp.

Xanthoria ligulata

Xanthoparmelia ?australasica

Xanthoparmelia ?flavescentiragens

Other unidentified crustose lichens, mainly on rocks.

Seed Conservation Centre

Sunday 8th. September

Around 18 members and friends turned out on a sunnier than forecast morning for the September excursion to the Royal Tasmanian Botanical Gardens Tasmanian Seed Conservation Centre, formerly known as the Seed Bank, for a guided tour by James Wood, both a TFNC member and Director of the unit.

The overall aim of the Centre is to collect seed from all Tasmanian vascular species. That, as James explained, can be the easier part of many species, as a supplementary aim is to find and document the environmental stimuli involved in germination.

Half of each seed collection made in Tasmania is stored in the TSCC, while the other half is sent to the MSBP (Millenial International Seed Bank Project) in the UK, as part of the global seed conservation effort. This collection is also an important 'back up' for the collection remaining in Tasmania.

Information gathered by the project is in the public domain via a database recording germination results, rates, and the conditions under which they were obtained.

As naturalists, we realise that nature very often is even more complex than the diversity of life that we see in local habitats. This is no less the case in germination ecology than in most other areas. Two of the most important parameters involved in germination are temperature and photoperiod or light regime. James explained that for some species it is not even a single combination of these factors, but perhaps one or more combinations followed by at least another different set.

James Wood and young naturalist in the Seed Centre
Photograph: Amanda Thomson

Progress made at the Seed Bank has been steady and resulted in investment in new equipment like programmable germination chambers that can subject seed being tested to a range of combinations of simulated environmental factors. It is hoped that these will assist in evaluating the germination secrets of those "stubborn" species for which simple experiments have not revealed their germination requirements as yet. In the wild, of course, we know that there are often other factors at play in the complexity of competition and survival. Many organisms release chemicals that may impede or facilitate germination, just one example of what very often may be secrets to be investigated by future germination ecologists.

In practical terms, much of the "leg work" of the centre is, as seems usual these days, performed by volunteers. This may be seed collection and ancilliary information or, back in the Centre, sorting, cleaning,

Learning about the Seed Conservation Centre from James
Photograph: Amanda Thomson

packaging and storing of seeds under the supervision of the research staff. Sounds like an opportunity for Field Nats with an abundance of spare time!

Another way in which the public, including commercial users of native plants, can contribute, is in expertise about species they have managed to germinate after much effort. James cited Mountain Rocket, *Bellendena montana,* as an example. This plant is abundant in Tasmania but usually grows above 400m elevation. It is regarded as a basal member of the Proteaceae. James recalled being told that one of the native-plant nursery operators said that they had cracked the germination formula for this species but wasn't sure which.

Sometimes field work provides an indication of imminent seed production through flowering, budding, etc. This triggers a return visit at the time estimated for seeds to form but can go astray. James related that profusely flowering *Persoonia juniperina* on the West coast gave such promise late one summer but when the collectors made the long trip back, migrating silvereyes had eaten every last fruit!

A final bonus was a pair of Striated Pardalotes displaying to each other and apparently preparing to nest in a crevice in an older building.

Viola species, one of the subjects of study
Photograph: Amanda THomson **Don Hird**

North West Bay River

Saturday 5th. October

TFN group at start of NW Bay River excursion
Photograph: Mick Brown

A group of around 20 met at the carpark for Cathedral Rock track and commenced the short walk through some tall trees which soon gave way to a moss and lichen covered floor. This excursion was a follow-up to Thursday's meeting and presentation by Bryologist, Dr Perpetua Turner.

Great to see a good tribe of younger members with us, who thoroughly enjoyed the river and rocks, together with Simon who spent most of his time there collecting insects.

Greenhoods protruding from mossy bases became the focus -*Pterostylus pedunculata* and *Pterostylus melagramma* gained paparazzi status.

Pep Turner identifies bryophytes by the track
Photograph: Annabel Carle

Despite the sumptuous day with barely a cloud in the sky, we saw few insects or spiders. Not warm enough for snakes either. However Simon appeared to find many small flies on the bouldered riverbed. Many birds were calling and a male Pink Robin was seen,

while a Wedge-tailed Eagle flew over and was later seen being escorted out by 2 Ravens!

Perpetua did a magnificent job bringing her 4 children and showing and describing various moss families.

Exciting to see the large *Gyromitra esculenta* Ascomycete fungus, one I'd not seen before.

Unfortunately, one of our members was catapulted down the bank when the edge of the narrow path collapsed under her foot, and the next day found her ankle was broken not sprained! She heroically hobbled out and is now mending in a special boot!

Overall it was a lovely walk along the river with interesting flora and lots of ferns and mosses despite the fact that we found the forest quite dry.

Amanda Thomson

Species List

Snails (Kevin)

Tasmaphena sinclairi
Prolesophanta nelsonensis
Paralaoma mucoides
Gratilaoma halli
*Trocholaoma parvissima**
Punctidae sp "Micro Cripps"
Bonhamaropa sp "Wellington",
*Kessneropa mimosa**.

(* = new records for this locality).

Introduced slugs

Arion intermedius
Deroceras reticulatum

(both less frequent than on previous visits)

Birds

Black Currawong
Brown Goshawk
Brown Thornbill
Fan-tailed Cuckoo
Flame Robin
Forest Raven
Green Rosella
Grey Currawong
Grey Fantail
Horsfield's Bronze-cuckoo
Shining Bronze-cuckoo
Laughing Kookaburra
Pallid Cuckoo
Pink Robin
Silvereye
Striated Pardalote
Superb Lyrebird
Wedge-tailed Eagle

Insects

Rhagadolyra magnicornis - a Lauxaniid fly
Limoniinae - a short-palped Crane Fly, c/w a mite on its head
Acanthsomatididae possibly *Hiarchas sp. -a Shield Bug*

Bryophytes

Acrocladium chlamydophyllum
Breutelia pendula
Camptochaete arbuscula
Cyathophorum bulbosum
Dicranoloma billardieri/robustum
** *Hypnum cupressiforme* or *Rhaphidorrhynchium amoenum*
Hypopterygium didictyon
Leptotheca gaudichaudii
Mniodendron comosum
Neckera pennata
Polytrichum aff. commune
Ptychomnion aciculare
Wijkia extenuata

Liverworts

Bazzania adnexa or *B. involuta*
Chiloscyphus semiteres
Frullania sp.
Lepidoziaceae possibly Lepidozia sp.
Radula aff. buccinifera

Lichens

Cladia sp.
Stereocaulon ramulosum
Usnea sp.

Ferns

Blechnum nudum - Fishbone water-fern
Blechnum wattsii - Hard water-fern
Ctenopteris heterophylla - Gipsy fern
Dicksonia antarctica - Soft tree-fern
Histiopteris incisa - Bat's wing-fern
Hymenophyllum flabellatum - Shiny filmy-fern (with straw coloured hairs at base of stipe)
Hypolepis rugosula - Ruddy ground-fern
Microsorum pustulatum - Kangaroo fern
Notogrammitis billardierei - Finger fern
Polystichum proliferum - Mother shield-fern
Pteridium esculentum - Bracken

Fungi

Gyromitra esculenta
Laccaria sp.
Mycena vinacea
Perenniporia ochraleuca(?) (a polypore with small

pores)
Rhizochaete filamentosa

Slime Moulds

Stemonitis sp.
Trichia sp.

Monocots

Gahnia grandis
Gahnia radula? (slender heads/saw-edged leaves growing in a swampy area when it's wet)
Uncinia sp.

Orchids

Pterostylis pedunculata - Maroon Greenhood
Pterostylis melagramma - Black-striped Greenhood

Dicots

Acacia dealbata - Silver Wattle
Acacia verticillata - Prickly Moses
Bedfordia salicina - Tasmanian Blanket-leaf
Cassinia aculeata - Dollybush
Coprosma quadrifida - Native Currant
Correa lawrenceana - Mountain Correa
Cyathodes glauca - Purple Cheeseberry
Eucalyptus regnans - Swamp Gum/Tasmanian Oak
Hakea nodosa - Yellow Needlebush
Leptospermum lanigerum - Woolly Teatree
Melaleuca (Callistemon) pallida - Yellow Bottlebrush
Monotoca glauca - Goldywood
Olearia argophylla - Musk Daisybush
Pimelea drupacea - Cherry Riceflower
Pittosporum bicolor - Cheesewood
Pomaderris apetala - Common Dogwood
** (See back page for note on identification.)

Library Corner

An updated TFN catalogue as at October 2019 can be found on our website at:

http://tasfieldnats.org.au/library/

Please email me at librarian@tasfieldnats.org.au or see me in the foyer prior to a monthly meeting to browse through or borrow any book in our collection including the following new books.

Book Accessions since 2019

Spiders of Tasmania By John Douglas. Published by QVMAG in 2019.

This book illustrates many of the spiders found in Tasmania, including the common, the unusual, the new and those that are yet to be formally described and named. It is a resource for those wishing to identify the spiders they encounter in the house of garden, along with naturalists out exploring the Tasmanian wilderness.

Webs: A Guide to the Spiders of Tasmania by John Douglas. Published in 2014.

To fill a gap in our library this book was kindly donated by Amanda Thomson.

There are many more spiders than pages in the book… the most common spiders that are found in the garden and in in the bush were chosen as well as some more obscure samples. Not all of the spiders are exclusively Tasmanian. Some are also common to those found on the mainland and some are world spiders which occur in several other countries.

Kindred A Cradle Mountain Love Story by Kate Legge
Published in 2019.

This book traces the achievements of Gustav Weindorfer and Kate Cowie,who were unconventional adventurers for their time. It records their fight to preserve the wilderness where they pioneered eco-tourism. The World Heritage landscape is now visited by 280,000 people pa.

Snakes of Tasmania by Simon Fearn
First published in 2014 Reprinted in 2015.

To fill another gap in our library, this book provides fascinating insights into the biology and habits of Tasmania's three venomous snakes. Find out how to tell the difference between the three snakes. How Tasmanian snakes have adapted to living in a cool climate. Why Chappell Island tiger snakes are unique. How big Tasmanian snakes really grow. When are you most likely to encounter snakes in the bush or your backyard? Why snakes are an important part of Tasmania's ecosystem.

Dragon Lizards of Australia: Evolution, Ecology and a comprehensive Field Guide by Jane Melville and Steve K Wilson.
Published in 2019.

Australian dragons include some of our most iconic and best-known lizards – the spectacular Frill-necked Lizard, the strange and prickly Thorny Devil and the bearded dragons. More than 100 species live across Australia although only one, the Mountain Dragon lives in Tasmania. This book includes the most recent understanding of their origins, life history, ecology, distribution and conservation. Every Australian species is included and is accompanied by descriptive text, excellent images and a distribution map.

Annabel Carle (TFNC Librarian)

Composite photograph of the White-bellied Sea Eagle seen fishing at Fossil Cove on the August excursion
Photographs: Mick Brown

Faunaverse wins book award

Faunaverse wildlife in poetry Tasmania recently won the 2019 Royal Zoological Society of NSW prestigious Whitley Book Award in the category of 'Young Naturalist'.

Congratulations to authors Alexander & Jane Dudley.

Citizen Science Opportunities

From time to time TFN receives news of research seeking involvement of citizen scientists. We now have a Citizen Science webpage on our website where opportunities for involvement will be collated. Please visit the page and see how you can be involved.

https://tasfieldnats.org.au/citizen-science/

Vol. 141 of The Tasmanian Naturalist out soon!

This is our major annual publication with 16 papers on a range of topics. All members will receive one in the post at the end of November.

The papers from Vol 140 (2018) are now available in digital form through our website.

They found our Website!

We recently received a letter from a teacher in a school in USA, to say the children had discovered our website and the useful links on it, which were helpful for their environmental science research projects and their understanding of what it means to be a naturalist.. The children were learning about wildflowers, and wanted to return the favour by recommending a useful site for for us. It is now posted on our links page. To find out what Ms. Ainsworth and Jamie, Miranda, Kella, and Chris recommend, go to ***https://tasfieldnats.org.au/links/***

Note from Perpetua Turner

Re distinguishing *Hypnum cupressiforme* from *Rhaphidorrhynchium amoenum*

These are difficult to separate in the field (https://www.utas.edu.au/dicotkey/dicotkey/Mosses/mSEMATOPHYLLACEAE/gRhaphidorrhynchium.htm). If collected – scrape leaves off the stem and mount them on a microscope slide. If the leaves have large cells at the bottom in the corners, it's *R. amoenum* (go to this page and scroll down to see images e.g. Bill Malcolm's image is brilliant) http://www.anbg.gov.au/abrs/Mosses_online/01_Semat_images.html

Mosses (Reference: http://www.anbg.gov.au/abrs/Mosses_online/)

About The Tasmanian Field Naturalists Club

We encourage the study of natural history and support conservation. People of any age and background are welcome as members.

For more information, visit our website

https://www.tasfieldnats.org.au/

or email secretary@tasfieldnats.org.au or

write to: GPO Box 68, Hobart, 7001

Subscriptions are:

Family $35

Single $30

Single Junior or Concession $25

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by cheque to the Club address,

by Paypal (follow the links on our website or EFT to the Club account:
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Your articles and photos for the Bulletin are welcome. Please email to the editor at

tfn.bulletin.editor@gmail.com